

Dr. Sun Wong

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Education:

The Chinese University of Hong Kong, B.S. in Physics (with honor), 1992

Columbia University, M.A. and M.Phil. in Physics, 1995

Columbia University, Ph.D. in Physics, 1999

Employment:

2009-present: Research Scientist, Jet Propulsion Laboratory, Pasadena, CA

2005-2009: Assistant Research Scientist, Department of Atmospheric Science, Texas A&M University, College Station, TX.

2003-2005: Postdoctoral Research Associate, Earth System Science Interdisciplinary Center, University of Maryland, College Park, MD.

1999-2003: Postdoctoral Research Associate, Atmospheric Science Research Center, State University of New York at Albany, Albany, NY.

Experience and Service:

2007: Convener and chair of the session “The Role of Dust in the Global Climate System” in 2007 AGU spring meeting in Acapulco, Mexico

2006 Fall: Lectured in graduate level class, Climate Modeling (ATMO 631), for Prof. Andrew E. Dessler. Covered special topics such as deep convective parameterization and advection schemes in GCMs

2005-present: Reviewer for *Science*, *Geophys. Res. Lett.* (AGU), *J. Geophys. Res.* (AGU), *J. Appl. Met. and Clim.* (AMS), *Atmos. Env.*, and *Annales Geophysicae* (EGU)

2000-2003: Building a coupled tropospheric climate-chemistry model based on NCAR CCM3 and UiO chemistry module.

1999-2000: Conducted long-term climate simulation in SUNY at Albany for the Atmospheric Model Intercomparison Project 2 (AMIP2)

1992-1994: Taught undergraduate laboratory sections in the Physics Department of Columbia University

Honor and Award:

2005: Article “Suppression of deep convection over the tropical North Atlantic by the Saharan Air Layer” highlighted by *Geophys. Res. Lett.*

Publications:

- Wong, S.**, A. E. Dessler, N. M. Mahowald, P. Yang, and Q. Feng (2009), Maintenance of lower tropospheric temperature inversion in the Saharan Air Layer by dust and dry anomaly, *J. Clim.*, **22**, 5149-5162.
- A. E. Dessler and **S. Wong** (2009 J. Climate accepted), Climate model simulations of the water vapor climate feedback during the El Niño Southern Oscillation
- Wong, S.**, A. E. Dessler, N. M. Mahowald, P. R. Colarco, and A. da Silva (2008), Long-term variability in Saharan dust transport and its link to North Atlantic sea surface temperature, *Geophys. Res. Lett.*, **35**, doi:10.1029/2007GL032297.
- Wong, S.**, and A. E. Dessler (2007), Regulation of H₂O and CO in tropical tropopause layer by the Madden-Julian oscillation, *J. Geophys. Res.*, **112**, D14305, doi:10.1029/2006JD007940.
- Wong, S.**, P. R. Colarco, and A. E. Dessler (2006), Principal component analysis of the evolution of the Saharan Air Layer and dust transport: Comparisons between a model simulation and MODIS and AIRS retrievals, *J. Geophys. Res.*, **111**, D20109, doi:10.1029/2006JD007093.
- Wong, S.**, and A. E. Dessler (2005), Suppression of deep convection over the tropical North Atlantic by the Saharan Air Layer, *Geophys. Res. Lett.*, **32**, L09808, doi:10.1029/2004GL022295
- Wong, S.**, W. -C. Wang, I. S. A. Isaksen, T. K. Berntsen, and J. K. Sundet (2004), A global climate-chemistry model study of present-day tropospheric chemistry and radiative forcing from changes in tropospheric O₃ since the preindustrial period, *J. Geophys. Res.*, **109**, D11309, doi:10.1029/2003JD003998.
- Gauss, M., I. S. A. Isaksen, **S. Wong**, and W. -C. Wang (2003), Impact of H₂O emissions from cryoplanes and kerosene aircraft on the atmosphere, *J. Geophys. Res.*, **108**(D10), 4304, doi:10.1029/2002JD002623.
- Wong, S.**, and W. -C. Wang (2003), Tropical-extratropical connection in interannual variation of the tropopause: Comparison between NCEP/NCAR reanalysis and an atmospheric general circulation model. *J. Geophys. Res.*, **108**(D2), 4043, doi:10.1029/2001JD002016.
- Wong, S.**, and W. -C. Wang (2000), Interhemispheric asymmetry in the seasonal variation of the zonal mean tropopause. *J. Geophys. Res.*, **105**, 26,645-26,659.
- Wong, S.**, M. J. Prather, and D. Rind (1999), The seasonal and interannual variability of the budgets of N₂O and CCl₃F. *J. Geophys. Res.*, **104**, 23,899-23,909.
- Shindell, D. T., **S. Wong**, and D. Rind (1997), Interannual variability of the Antarctic ozone hole in a GCM. Part I: The influence of tropospheric wave variability. *J. Atmos. Sci.*, **54**, 2308-2319.